

WEATHER IN THE UNITED STATES

GENERAL CONDITIONS

The month was warmer than usual over the greater part of the United States. The outstanding feature, judged by its effect in contributing to what appears to be the greatest flood in a century in the lower Mississippi, was the heavy rains of the month in the Ohio, Mississippi, and the lower Missouri Valleys, portions of which received from 100 to 300 per cent of the normal March precipitation. The heavy rains were confined to the interior valleys and the middle plateau and Rocky Mountain regions. Large areas in both the Atlantic and Pacific drainage had a pronounced shortage in precipitation. The usual details follow.—A. J. H.

CYCLONES AND ANTICYCLONES

By W. P. DAY

The great HIGH, which had been developing over the Canadian Northwest during the last days of February, moved slowly southeast during the first five days of March, and thereafter, until the 18th, high-pressure areas were of slight intensity and largely of Pacific origin. Between the 18th and the end of the month several HIGHS of the Hudson Bay, Alberta, and North Pacific types of moderate intensity were observed. There were 13 HIGHS in all.

Twenty-one low-pressure areas were tracked, but the only important storm occurred during the first three days of the month, a development over the Gulf, which moved northeast along the Atlantic coast in connection with the great HIGH over the interior.

THE WEATHER ELEMENTS

By P. C. Day, In Charge of Division

PRESSURE AND WINDS

March, 1927, had frequent changes in barometric pressure over the central and northern districts, but they were usually of only moderate importance; hence the winds were mainly light, and the stormy, blustery weather commonly associated with March was notably lacking, not only in the areas referred to above but in most other districts as well.

March opened with cyclonic conditions near the middle Gulf coast, attended by precipitation over an extensive area to the northward, and snow was falling over the northern portion of the area from the middle Missouri Valley southeastward to the elevated districts of the Carolinas and Georgia. By the morning of the 2d the storm had moved to the North Carolina coast, greatly increased in intensity, and unusually heavy snow for the region and season had fallen over the southern Appalachian Mountains and eastward nearly to the coast. The depths in North Carolina were particularly heavy, ranging up to 2 feet or more, in some instances the greatest depths ever recorded. High winds accompanied the storm as it approached the coast and much drifting of snow and interruption to traffic resulted for a short period. This storm moved northeastward into the ocean during the 3d, and snowfall did not extend north of the southern Chesapeake Bay region. The precipitation associated with this storm was generally heavy over the Gulf and South Atlantic States, New Orleans reporting more than 4 inches on the morning of the 1st.

The next important cyclone originated near the middle Rio Grande Valley on the 6th, and by the 7th had moved

to the middle Mississippi Valley, attended by local thunderstorms and some heavy rains in northern Texas and portions of Arkansas and near-by areas. By the morning of the 8th the center had moved to the St. Lawrence Valley, and heavy rains had continued over portions of the area referred to above and extended into the Ohio Valley and near-by areas, while lighter falls had occurred over most other districts from the Mississippi River eastward, save along the South Atlantic and east Gulf coasts.

On the 9th and 10th a slight barometric depression passed over the Gulf and South Atlantic States attended by some heavy rains, and at the same time showers with local snows were rather general in the plateau region and to the westward. On the morning of the 11th a storm of moderate intensity was central over northwest Texas and snow was falling over much of the middle Rocky Mountains, and local heavy rains had occurred in western Kansas, the rain area extending into the southern plains. During the following two days the storm advanced through the middle Missouri Valley to the upper lake region and heavy rains occurred over extensive areas in the Mississippi and Ohio Valleys. At Memphis, Tenn., the total fall on the 11th and 12th was nearly 6 inches, and amounts from 1 to 2 inches or more occurred at numerous points in the area of heavy precipitation.

Some heavy rains occurred over a narrow area from northern Texas to the lower Lakes on the 18th and 19th. On the latter date a well-defined cyclone was central over New Mexico, whence it moved through the middle Mississippi Valley to the lower Lakes and North Atlantic coast during the following three days, attended by heavy rains over much of the central valleys and general rains over most of the country to the eastward, with more or less snow, glaze, or sleet over the northern portion of the precipitation area.

The last decade had rather frequent showers in the central valleys and some eastern districts, but the amounts were mainly small, except on the last day, when an extensive cyclone moving from the middle plateau was central over eastern Colorado and precipitation had extended well to the eastward of the center of low pressure. Heavy rains had fallen in the middle Mississippi Valley, and by the morning of April 1 the storm was central over eastern Missouri, attended by additional heavy rains in the middle Mississippi Valley and near-by areas, adding greatly to the flood conditions already threatening in that region. This storm moved eastward toward the Middle Atlantic States during the 2d, but with diminished precipitation.

Over the Pacific Coast States cyclonic storms were markedly infrequent and unimportant, and there was mainly little precipitation at any time during the month.

The most important anticyclone of the month covered the western plains at the beginning, and as it moved eastward, brought for a few days the coldest weather of the month to all districts from the Great Plains eastward. This was particularly effective in lowering the temperature over the Gulf and South Atlantic States, where freezing temperature extended to the coast lines and into the interior of the Florida Peninsula, considerable damage to vegetation occurring as far south as the Everglades. On account of rain and snow having recently preceded the change to colder weather, much damage resulted in the early fruit districts of the Southeast from water freezing in the open blossoms.